# DRAFT WATER RECYCLING ELEMENT CALFED WATER USE EFFICIENCY COMPONENT

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## Public Policy Foundations

[The following text is to be inserted at the end of the "Public Policy Foundations" section of the Water Use Efficiency Common Program description:]

California public policy also places a strong emphasis on water recycling. California Water Code Section 461 provides that the public policy of the State requires the maximum re-use of wastewater. California Water Reclamation Law (Cal. Water Code Sections 13550-13556) declares that the people of California have a primary interest in developing water reclamation facilities to meet the State's reliable water needs and augment existing surface and groundwater resources. California Water Code Section 13512 declares the intent of the Legislature and the State to undertake steps to encourage development of water reclamation facilities and beneficial reuse of reclaimed water. The Water Recycling Act of 1991 (Cal. Water Code Section 13577) set recycling goals of 700,000 acre-feet of water annually by year 2000 and 1,000,000 acre-feet annually by 2010.

Further legislative and regulatory provisions reiterate the general tenets of California Water Reclamation Law, specifically focusing on coastal areas. In coastal zone areas, recycling of treated water that would have otherwise been disposed into the ocean, creates a "new" supply of water for that region. This is recognized legislatively in California Water Code Section 13142.5(e), which urges wastewater treatment agencies located in a coastal zone to reclaim and re-use as much of their treated effluent as is practicable. It is also recognized through regulation by the State Water Resources Control Board in its 1984 decision 'in the matter of the Sierra Club, San Diego Chapter', Order #WQ 84-7, where the Board held as follows:

"In this case and all other cases where an applicant...(i.e., for a permit to discharge effluent into receiving waters)..., proposes to discharge effluent once-used wastewater into the ocean, the report of the discharge should include an explanation of why the effluent is not being reclaimed for further beneficial uses." This is consistent with State policy established by the Legislature in Cal. Water Code Section 13142.5(e).

## VII. WATER RECYCLING APPROACH

Water reclamation and reuse, referred to as "water recycling," is a safe, reliable, and locally controlled water supply. Tertiary treated, disinfected recycled water is permitted for all non-potable uses in California through Title 22 of the State Health and Safety Code. Moreover, under specific conditions, advanced treated reclaimed water can be used to augment ground or surface drinking water sources. Advanced treated reclaimed water is presently under consideration for regulation in the groundwater case, and for demonstration projects in the surface water augmentation case.

Recycled water supplies are projected to grow. In 1996 the California Department of Water Resources conducted a Survey of Water Recycling Potential to help identify and quantify recycling plans. The survey identified actual recycling of 450,000 af/yr in 1995, and projected recycling of 1.48 million af/yr by 2020. It should be noted that these projected reuse totals represent the plans of local water and sanitary agencies. They do not necessarily represent the total recyclable waste stream, or *actual potential reuse*. The California Department of Water Resources is presently calculating the actual potential total recycled water supply in conjunction with its Bulletin 160-98, *California Water Plan Update*. The WateReuse Association of California, in its *Survey of Water Recycling Potential*, 1993, estimates the total wastewater flow to the ocean and other saline water bodies to be 3 million acre-feet. This waste stream, or some economic portion of it, better approximates the potential for water recycling. This number, as stated above, will be updated by DWR for its *California Water Plan Update*.

Local agencies' plans and their actual project development do not match. For example, the WateReuse Association's 1993 Survey reports local agencies planned to reuse over 650,000 acre-feet of reclaimed water by 1995. This level of reuse did not materialize. The most obvious reason for the shortfall between 1993 projections for 1995 and the actual 1995 usage stems from the fact that when the 1993 Survey was being prepared, the memory of recent drought was vivid. By 1995, wet years may have diminished the support for recycled water projects.

A primary characteristic of recycled water project development is that it is a local decision. In some regions of California, larger water wholesaling agencies have local project programs that provide a financial contribution for each new acre-foot of water that their member agencies develop. These local project programs have had excellent success encouraging water recycling programs.

### Water Recycling Project Development Actions

### 1. Water Recycling Planning and Implementation

Purpose: Provide a uniform, verifiable, locally directed process for recycled water market identification and integrated water and wastewater project planning for water recycling.

Presently, all urban water agencies that are required to prepare Urban Water Management Plans (California Water Code Section 10610 et. Seq.) must also prepare a water recycling feasibility plan within the UWMP process (Water Code Section 10631). The 1995 UWMP's were the first that included this required feasibility analysis.

Action #2 under Urban Water Conservation Actions is the certification of water management planning. Action #2 includes certification by DWR of agencies' preparation of water recycling feasibility plans that meet the requirements of the Urban Water Management Planning Act.

(Water recycling is not one of the BMPs listed in the 1991 Urban MOU. Water recycling planning and implementation would be assisted by creating a new BMP encouraging water recycling market evaluation and project feasibility evaluations. The Council has provided a positive, successful, and constructive forum for information exchange and program development in the field of urban water conservation. It could play the same valuable support role in the related field of water recycling. CALFED therefore suggests that the Urban Water Conservation Council consider a BMP for water recycling market evaluation and project feasibility evaluation.)

**2. Water Recycling Technical and Planning Assistance**

Purpose: Ensure that lack of technical and planning expertise does not impede implementation of cost-effective water recycling projects by providing easily accessible assistance for planning and implementing local water recycling market evaluations, integrated water and wastewater project planning, and financial evaluations leading to accessing special water recycling funding opportunities.

Technical and planning assistance is critical to the successful achievement of feasible water recycling plans, and ultimately, projects. Assistance will be directed in three key areas. The first key area is identification of *local scale* water recycling projects. The California Urban Water Agencies and the WaterReuse Association are developing a guidebook describing methods for the evaluation of water recycling projects. CALFED agencies will provide technical and planning assistance to facilitate use of this guidebook. The guidebook and technical assistance will help local agencies carry out the engineering, economic, financial, and environmental impact evaluations that can lead to successful project implementation on the local level. It will also highlight the information needed to obtain any necessary permits or actions from regulatory agencies.

The second key area is local agency encouragement leading to participation in regional-scale project planning by evaluating and informing them about the benefits to them of participation. DWR provides some local-scale technical and planning assistance through their Water Recycling Specialist. Under this action, DWR will continue to provide and USBR will establish a program to provide technical and planning assistance and continue to participate on regional water recycling feasibility studies. Assistance programs will be expanded as necessary to ensure that

lack of technical and planning expertise does not impede implementation of cost-effective measures. Additional assistance may be provided by regional water agencies and sanitation districts whose member units may require this type of assistance.

The third is the identification and successful introduction to local agencies of *regional-scale* opportunities for additional water recycling such as the Southern California Comprehensive Water Reclamation and Reuse Study and the Central California Regional Water Reclamation and Reuse Study (see activity 4 below).

### 3. Funding Assistance

Purpose: Ensure that lack of financing ability does not impeded implementation of cost-effective measures. Provide easily accessible funding for planning and implementing local water recycling projects.

Funding assistance is an integral part of the successful optimization of water recycling potential. CALFED will facilitate the implementation of local water recycling projects by making available flexible funding assistance programs or augmenting funding in existing programs at the State level. Both SWRCB and DWR have financing programs for the purpose of funding recycled water treatment plant and distribution facilities. Funding programs like those at DWR, SWRCB, and USBR, through Title 16, P.L. 102-575, will continue under this action. Establishment of appropriate guidelines for awarding the funding should be developed in cooperation with the water recycling industry and other interested parties.

### 4. Identify and encourage regional water recycling opportunities that maximize reuse at minimum cost

Purpose: Provide opportunities for local water and sanitary agencies to join together to plan regional projects to their mutual benefit.

Regional water recycling projects have a potential advantage over single-community, local projects to optimize water reuse in those regions. Optimization of water recycling potential at minimal cost can best be realized by evaluating the transfer of recycled water from areas of excess supply to areas of excess demand, identify regional seasonal storage opportunities, and regional brine line feasibility. Regional partnerships between local water and wastewater agencies can enhance the success of regional projects.

Presently both USBR and DWR participate with water and wastewater agencies in some regional-scale feasibility studies of water recycling potential along with local and regional water and sanitation agencies that cost-share with DWR and USBR on these studies. CALFED will encourage participation in additional regional studies with the intent of optimizing recycled water use at minimum cost. Financial assistance (see activity #3), should be used to encourage local agency participation in the regional planning activities.